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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,764	08/13/2001	Franklin E. Parks	44446A	8760

109 7590 11/29/2001

THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER

SERGEN T, RABON A

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 11/29/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

T.D-3

Office Action Summary

Application No.
09/928,764

Applicant(s)
Parks et al.

Examiner
Rabon Sergeant

Art Unit
1711



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

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1. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how "substantial" is to modify "absence". In other words, it is unclear what quantity of solvent may be present and still satisfy the "substantial absence" language.

2. Claims 3, 4, 7, 10, 15, 16, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Within claims 3, 4, 10, 15 and 16, the use of "high" and "low" to describe the molecular weights renders the claims indefinite, because the language is subjective. It is unclear what numerical ranges are represented by the language.

Within claims 4 and 16, applicants have failed to indicate the type of percent (i.e., weight or mole).

Within claims 7 and 18, applicants have failed to specify the basis for the weight percents.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 9, 11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Watchko ('596).

Patentee discloses coating compositions comprising an aqueous aliphatic polyurethane prepolymer dispersed in the presence of an anionic surfactant. See columns 1 and 2.

5. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Markusch ('008) or Coogan et al ('381), each in view of Watchko. ('596).

The primary references describe the production of nonionic polyurethane prepolymers and their dispersion and chain extension within water. See abstract and columns 2-8, 11 and 13 within Markusch. With respect to Markusch, it is noted that the ionic groups are optional; therefore, the

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prepolymers lacking these groups are nonionic prepolymers. Additionally, Markusch teaches that solvent use is optional and that emulsifiers may be used. See column 13, lines 17-20. See abstract and columns 2-6 within Coogan et al. Coogan et al are also considered to teach that the use of a solvent is optional and that external emulsifiers may be used.

6. While the primary references teach the use of external emulsifiers, the references fail to disclose the specific use of anionic surfactants. However, the use of anionic surfactants as emulsifiers within aqueous, polyurethane systems was known at the time of invention. This position is supported by the teachings of Watchko. See column 2, lines 6-12 within Watchko.

7. Therefore, since anionic surfactants were known emulsifiers for aqueous polyurethane dispersions; the position is taken that it would have *prima facie* obvious to incorporate such a surfactant into virtually any aqueous polyurethane dispersion, so as to improve or enhance the properties or stability of the dispersion.

8. It is noted that before the incorporation of ionic groups into polyurethanes, the use of external emulsifiers was the accepted means of producing aqueous polyurethane dispersions.

9. Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

Sergent:mv

October 22, 2001


RABON SERGENT
PRIMARY EXAMINER